CLAIMS

1. An automation system for controlling and monitoring a plurality of devices using controllers,

each of the plurality of devices comprising:

a receiver for receiving signals,

a transmitter for transmitting signals,

a first memory holding a device identifier identifying the device,

a processor for controlling the reception and transmission of signals, and

means for providing an output to, or receiving an input from, an appliance connected to the device in response to a received signal,

a first controller comprising:

a radio frequency transmitter for transmitting signals,

a radio frequency receiver for receiving signals,

a first memory comprising an organized data structure holding device identifiers of devices controlled by the first controller,

a second memory holding a controller identifier identifying the first controller, and

a processor for controlling the reception and transmission of signals and being adapted to store and read device identifiers in the first memory, the processor comprising means for generating a signal addressed to one or more devices and comprising instructions related to the operation of the appliance connected to the device,

a second controller comprising:

a radio frequency transmitter for transmitting signals,

a radio frequency receiver for receiving signals,

a first memory for holding, in a corresponding organized data structure, device identifiers of devices to be controlled by the second controller,

a second memory for holding a controller identifier identifying the second controller, and

a processor for administering the reception and transmission of signals and being adapted to store and read device identifiers in the first memory, the processor comprising means for generating a signal addressed to one or more devices and comprising instructions related to the operation of the appliance connected to the device,

wherein the processor of the first controller further comprises means for generating one or more signals comprising the device identifiers from the organized data structure of the first memory of the first controller, and

wherein the processor of the second controller has a first, normal mode of operation in which it is adapted to transmit signals to, and receive signals from, devices controlled by the second controller, and a second mode of operation in which it is adapted to receive said one or more signals from the first controller and store said device identifiers correspondingly in the organized data structure of the first memory of the second controller.

2. An automation system according to claim 1, wherein the second memory of the first controller holds a unique system identifier, the means for generating a signal comprise means for generating a signal holding the unique system identifier, and wherein the processor of the second controller is further adapted to store said system identifier in the second memory.

3. An automation system according to claim 1 or 2, wherein the organized data structure of the first memory of the first controller further holds alphanumerical data in relation to each device identifier as well as in relation to groups of device identifiers, and wherein the one or more signals generated by the first controller further comprises said alphanumerical data, and wherein the processor of the second controller is further adapted to store the alphanumerical data correspondingly in the corresponding organized data structure of the first memory of the second controller.

4. An automation system according to claim 3, wherein the alphanumerical data held in relation to each device identifier comprises predetermined settings characterizing the operation of one or more corresponding devices.

5. An automation system according to claim 3, wherein the alphanumerical data held in relation to each device identifier comprise predetermined settings characterizing the operation of the appliance connected to the corresponding device.

6. An automation system according to claim 3, wherein the alphanumerical data in held relation to each device identifier comprise predetermined routines related to the dynamical operation of one or more devices over a period of time.

7. An automation system according to any of the preceding claims, wherein the first memory of the first controller comprises a routing table indicating, for each device, other devices which can receive and process a signal transmitted by said device, and wherein the one or more signals generated by the first controller further comprises the routing table of the first controller, and wherein the processor of the second controller is further adapted to store said routing table in the first memory and wherein the processor of the second controller comprises means for identifying device identifiers in the routing table of devices for repeating a transmitted signal having a predetermined destination identifier and to include said device identifiers as repeater identifiers in the transmitted signal.

8. An automation system according to any of the preceding claims, wherein said one or more signals comprises a frame comprising a command in relation to each device identifier instructing the processor of the second controller as to where in the organised data structure of its first memory to store the device identifier.

9. An automation system according to any of the preceding claims, wherein the processor of the first or the second controller further comprises means for, before storing said device identifiers in the first memory of the second controller, erasing all information related to device identifiers in the first memory of the second controller.

10. An automation system according to any of the preceding claims, wherein the processor of the second controller is adapted to, when storing said device identifiers correspondingly in the organized data structure of the first memory of the second controller, overwrite all information related to device identifiers in the first memory.

11. An automation system according to any of the preceding claims, wherein the processors of the first and second controllers further comprise means for dynamically assigning controller identifiers to a controller upon introduction of the controller in the system, said means assigning controller identifiers using a predetermined sequence of controller identifiers.

12. An automation system according to claim 11, wherein the means for generating a signal comprises means for generating a signal holding an indication of the current identifier in said predetermined sequence of controller identifiers, and the processor of the second controller is further adapted to receive said signal and store said indication so as to allow the processor of the second controller to assign the controller identifier which is next in sequence to the last controller identifier assigned by the first controller, to a third controller.

13. An automation system according to any of the preceding claims, wherein the processors of the first and second controllers further comprise means for dynamically assigning device identifiers to a device upon introduction of the device in the system, said means assigning device identifiers using a predetermined sequence of device identifiers.

14. An automation system according to claim 13, wherein the means for generating a signal comprises means for generating a signal holding an indication of the current identifier in said predetermined sequence of device identifiers, and the processor of the second controller is further adapted to receive said signal and store said indication so as to allow the processor of the second controller to assign the device identifier which is next in sequence to the last device identifier assigned by the first controller, to a device.

15. A method for sharing information between a first and a second controller in a wireless automation system for controlling and monitoring a plurality of devices using controllers, so as for the second controller to have at least the same functionality as the first controller in terms of controlling the devices of the system, the first controller comprising a memory holding an organized data structure comprising device identifiers of devices controlled by the first controller, the method comprising the steps of generating and transmitting one or more signals comprising the device identifiers of devices controlled by the first controller, receiving said one or more signals at the second controller and storing said device identifiers in an equivalent organized data structure in a memory of the second controller.

16. A method according to claim 15, wherein the second controller comprises a processor having a first, normal mode of operation wherein it is adapted to transmit signals to, and receive signals from, devices controlled by the second controller, and a second mode of operation wherein it is adapted to receive said one or more signals from the first controller and store said device identifiers correspondingly in the organized data structure of the

memory of the second controller, the method further comprising the step of setting the processor of the second controller in its second mode of operation.

17. A method according to claim 15 or 16, wherein the step of storing said device identifiers correspondingly in the organized data structure of the memory of the second controller comprises the step of overwriting corresponding device identifiers already stored in the memory of the second controller.

18. A method according to claim 15 or 16, characterized in that it makes the second controller a replication of the first controller in terms of controlling the devices of the system, the method further comprising the step of, before storing said device identifiers in the memory of the second controller, erasing all information related to device identifiers in the memory of the second controller.

19. A method according to any of claims 15 to 18, characterized in that it makes the second controller a replication of the first controller in terms of controlling the devices of the system and in terms of set-up and learning of the system, wherein the signal further comprises instructions related to the set-up and learning of the system.